

IN THE SPECIFICATION:

Please replace paragraph starting at page 1, line 12 with the following amended paragraph:

The electrophotographic image forming apparatus is an apparatus in which an image is formed on a recording material (recording paper, textile or the like) using an electrophotographic image forming process, and includes an electrophotographic copying machine, an electrophotographic printer (a an LED printer, a laser beam printer and so on, an electrophotographic ~~printer-type~~ printer-type facsimile machine, an electrophotographic word processor and the like).

Please replace paragraph starting at page 2, line 14 with the following amended paragraph:

It is desired that such a used process cartridge ~~are~~ is given ~~the~~ commercial value again ~~value, again~~ by remanufacturing the process cartridge through an easy method.

Please replace paragraph starting at page 2, line 27 with the following amended paragraph:

It is a further object of the present invention to provide a remanufacturing method of a process cartridge for recycling a ~~wherein the~~ process cartridge whose ~~with which the~~ toner has been is consumed to such an extent that the user is not satisfied with the image quality ~~is recycled~~ so that the used-up cartridge can ~~to be given the~~ commercial value.

Please replace paragraph starting at page 3, line 20 with the following amended paragraph:

(b) a container separating step of separating ~~said~~ the process cartridge into ~~said~~ the toner developing container and ~~said~~ the ~~developing~~ cleaning container by disengaging ~~said~~ the pins from ~~said~~ the process cartridge;

Please replace paragraph starting at page 4, line 5 with the following amended paragraph:

(e) an elastic member mounting step of mounting an elastic member ~~to a~~ longitudinally inside of an end seal provided adjacent each of opposite longitudinal ends of a or ~~said~~ the developing roller, at a position laterally outside of ~~said~~ the end seal;

Please replace paragraph starting at page 5, line 12 with the following amended paragraph:

(b) a container separating step of separating ~~said~~ the process cartridge into ~~said~~ the toner developing container and ~~said~~ the ~~developing~~ cleaning container by disengaging ~~said~~ the pins from ~~said~~ the process cartridge;

Please replace paragraph starting at page 5, line 24 with the following amended paragraph:

(e) an elastic member mounting step of mounting an elastic member ~~to a~~ longitudinally inside of an end seal provided adjacent each of opposite longitudinal ends of a ~~said the~~ developing roller, at a position laterally outside of ~~said the~~ end seal;

Please replace paragraph starting at page 6, line 8 with the following amended paragraph:

(g) ~~a~~ first and second side seal mounting step of mounting a first side seal continuously on a longitudinal end of ~~said the~~ flexible sheet mounted on ~~said the~~ toner developing container having the flexible sheet and ~~said the~~ toner developing container having the flexible sheet, and a second side seal continuously on the other longitudinal end of ~~said the~~ flexible sheet and ~~said the~~ toner developing container having the flexible sheet;

Please replace paragraph starting at page 7, line 18 with the following amended paragraph:

(b) a container separating step of separating said process cartridge into said toner developing container and said ~~developing~~ cleaning container by disengaging ~~said the~~ pins from ~~said the~~ process cartridge;

Please replace paragraph starting at page 8, line 3 with the following amended paragraph:

(e) an elastic member mounting step of mounting an elastic member ~~to a~~ longitudinally inside of an end seal provided adjacent each of opposite longitudinal ends of a or ~~said the~~ developing roller, at a position laterally outside of ~~said the~~ end seal;

Please replace paragraph starting at page 9, line 12 with the following amended paragraph:

(b) a container separating step of separating ~~said the~~ process cartridge into ~~said the~~ toner developing container and ~~said the developing cleaning~~ container by disengaging ~~said the~~ pins from ~~said the~~ process cartridge;

Please replace paragraph starting at page 9, line 24 with the following amended paragraph:

(e) an elastic member mounting step of mounting an elastic member ~~to a~~ longitudinally inside of an end seal provided adjacent each of opposite longitudinal ends of a or ~~said the~~ developing roller, at a position laterally outside of ~~said the~~ end seal;

Please replace paragraph starting at page 10, line 8 with the following amended paragraph:

(g) ~~a~~ first and second side seal mounting step of mounting a first side seal continuously on a longitudinal end of ~~said the~~ flexible sheet mounted on ~~said the~~ toner developing container

having ~~said~~ the flexible sheet and ~~said~~ the toner developing container having ~~said~~ the flexible sheet, and a second side seal continuously on the other longitudinal end of ~~said~~ the flexible sheet and ~~said~~ the toner developing container having ~~said~~ the flexible sheet;

Please replace paragraph starting at page 12, line 1 with the following amended paragraph:

Figure 7 is a partly broken away side view of a process cartridge.

Please replace paragraph starting at page 12, line 10 with the following amended paragraph:

Figure 12 is a ~~developed~~ schematic view of a cleaner container.

Please replace paragraph starting at page 12, line 23 with the following amended paragraph:

Figure 18 is an enlarged ~~review~~ view of the E part in ~~Figures~~ Figure 17.

Please replace paragraph starting at page 12, line 25 with the following amended paragraph:

Figure 19 is an enlarged view of the F part of ~~Figures 17~~ Figure 17.

Please replace paragraph starting at page 14, line 8 with the following amended paragraph:

Figure 37 is a front view showing mounting of a ~~Figure 37~~ groove filling seal.

Please replace paragraph starting at page 14, line 10 with the following amended paragraph:

Figure 38 is a side view of the ~~Figure 38~~ groove filling seal.

Please replace paragraph starting at page 14, line 12 with the following amended paragraph:

Figure 39 is a perspective view of the ~~Figure 39~~ groove filling seal.

Please replace paragraph starting at page 14, line 14 with the following amended paragraph:

Figure 40 is a top plan view illustrating mounting of the ~~Figure 40~~ ~~Figure 40~~ groove filling seal.

Please replace paragraph starting at page 14, line 19 with the following amended paragraph:

Figure 42 is a side view illustrating a the positional relationship between the ~~Figure 42~~ groove filling seal and the ~~seal jaw~~ June 27, 2005seal.

Please replace paragraph starting at page 14, line 22 with the following amended paragraph:

Figure 43 is a top plan view illustrating the positional ~~a position~~ relationship between the ~~Figure 43~~ groove filling seal and the jaw seal.

Please replace paragraph starting at page 14, line 25 with the following amended paragraph:

Figure 44 is a front view of a developing roller at a longitudinal ~~and~~ end of the toner developing container as seen from the lower side.

Please replace paragraph starting at page 15, line 15 with the following amended paragraph:

Figure 52 is a perspective view of the photosensitive drum and the developing roller during an image forming operation.

Please replace paragraph starting at page 15, line 27 with the following amended paragraph:

Figure 56 is a longitudinal sectional view of a toner filling operation according to a further embodiment of the present invention.

Please replace paragraph starting at page 16, line 5 with the following amended paragraph:

The preferred embodiments of the present invention will be described in conjunction with the accompanying drawings ~~drawing~~ ~~us~~.

Please replace paragraph starting at page 16, line 8 with the following amended paragraph:

~~The~~ A description will be provided ~~made~~ first as to a general arrangements of an image forming apparatus and ~~in a~~ process cartridge according to an embodiment of the present invention and then as the manufacturing method of the process cartridge. ~~The~~ A description will be provided ~~made~~ then as to the steps of disassembling and reassembling of the process cartridge and as to the reassembled a process cartridge.

Please replace paragraph starting at page 16, line 16 with the following amended paragraph:

~~The remanufacturing of the~~ process cartridge from which the toner has been used up is disassembled into the toner developing container and the cleaner container, and the toner developing container is partly disassembled, and they are reassembled to provide a process cartridge having ~~the~~ a toner developing container which is similar in function to the new process cartridge but has a partly different structure from ~~the~~ a new process cartridge.

Please replace paragraph starting at page 16, line 25 with the following amended paragraph:

Referring to Figures 1 to 5, ~~the~~ a description will be provided ~~made~~ as to the process cartridge and an image forming apparatus to which the process cartridge is detachably mountable. ~~The~~ A description will also be provided ~~made~~ as to the general arrangements of the process cartridge and ~~in~~ the image forming apparatus, and then as to the structure of the cartridge frames and ~~father~~ as to the coupling of the frames.

Please replace paragraph starting at page 17, line 7 with the following amended paragraph:

The image forming apparatus in this embodiment is an electrophotographic image forming apparatus (laser beam printer) A, as shown in Figure 1, wherein an electrophotographic photosensitive member in the form of a drum is exposed to information light modulated in accordance with image information from an optical system 1, so that a latent image is formed on the photosensitive member, and the latent image is developed into a toner image. In synchronism with the formation of the toner image, the recording material 2 is fed out one by one from a sheet feeding cassette 3a using a pick-up roller 3b and separation claws 3c press-contacted at the corners of the top surface of the recording material 2, and the sheet is fed by feeding means 3 including a feeding path 3d and a pair of registration rollers. The toner image formed on the electrophotographic photosensitive member in the process cartridge B is transferred onto the recording material 2 by applying a voltage to transfer means in the form of a transfer roller 4, and

then the recording material 2 is fed to fixing means 5 on a feeding path 3f. The fixing means 5 comprises a driving roller 5a and a fixing roller 5c containing a heater 5b therein, and a pressure and heat is are imparted to the recording material 2 which ~~is passing~~ passes therethrough, by which the transferred toner image is fixed on the recording material. The recording material 2 is further fed by discharging rollers, and is discharged to a discharging portion 6 through a reverse feeding path.

Please replace paragraph starting at page 18, line 10 with the following amended paragraph:

On the other hand, the process cartridge B contains the electrophotographic photosensitive member and at least one of process means. Here, the process means includes charging means for electrically charging the electrophotographic photosensitive member, ~~the~~ developing means for developing a latent image formed on the electrophotographic photosensitive member, and cleaning means for cleaning the surface of the electrophotographic photosensitive member to remove residual toner. As shown in Figure 4, in the process cartridge B of this embodiment, the electrophotographic photosensitive member in the form of an electrophotographic photosensitive drum 7 having a photosensitive layer is rotated, and a voltage is applied on the charging roller 8 which is the charging means, so that the surface of the photosensitive drum 7 is uniformly charged, and the photosensitive drum 7 is exposed to a light image from the optical system 1 through an opening 9, by which ~~and~~ an electrostatic latent image is formed, and the image is developed by developing means 10.

Please replace paragraph starting at page 19, line 4 with the following amended paragraph:

In the developing means 10, the toner in a toner accommodating portion 10a is fed out by feeding means in the form of a rotatable toner feeding member 10b, and a developing roller 10d containing therein a stationary magnet is rotated, by which a layer ~~lady~~ of toner particles triboelectrically charged by ~~the~~ a developing blade 10e is formed on the surface of the developing roller 10d. The toner is selectively transferred onto the photosensitive drum 7 so that toner image is formed. The developing roller 10d functions to supply the toner to the photosensitive drum 7. The developing blade 10e functions to regulate a the thickness of the toner layer on the surface of the developing roller 10d.

Please replace paragraph starting at page 20, line 2 with the following amended paragraph:

Various parts, such as photosensitive drum 7, ~~is~~ are supported and accommodated in a cartridge frame which is provided by coupling the toner developing container 12 and the cleaner container 13. The cartridge is mounted to the main assembly 14 of the apparatus.

Please replace paragraph starting at page 20, line 8 with the following amended paragraph:

In the cartridge mounting means, when the cover member 15 is opened by rotating it about the shaft 15a (Figures 1, 2), there ~~is~~ are guide grooves 16 which ~~is~~ are inclined ~~the~~ award

toward the rear side at each of the left and right sides of the cartridge mounting space as shown in Figure 2. The guide grooves 16 are disposed substantially symmetrically. The guide ~~groove 16 is~~ grooves 16 are substantially linear. At the inlet side of the guide ~~groove~~ grooves 16 there is provided a positioning portion 16c (main assembly side positioning portion 16c).

Please replace paragraph starting at page 20, line 19 with the following amended paragraph:

On the other hand, at the ~~of the~~ opposite outer ends of the process cartridge, there are provided guide portions correspondingly to the guide grooves 16 to be guided by the guide ~~groove~~ grooves 16. The guide portions are projected substantially symmetrically at the opposite longitudinal ends of the cartridge, respectively. As shown in Figure 5, it each guide portion comprises a boss 18 and a rib 19 which are integral. The boss 18 and the rib 19 are integrally formed with the cleaner container 13 to which the photosensitive drum 7 is mounted, and the boss 18 is disposed on an extension of a rotational axis ~~excess~~ of the photosensitive drum 7, and the rib 19 is extended from the boss 18 in an inserting direction of the process cartridge B as indicated by an arrow C in Figure 5. The rib 19 extends to incline ~~inclined~~ downwardly in conformity with the guide ~~groove~~ grooves 16.

Please replace paragraph starting at page 21, line 9 with the following amended paragraph:

With this structure, when the process cartridge is to be mounted to the main assembly, as

shown in Figure 2, the cover member 15 is open, and the ribs 19 are engaged into the guide grooves 16, and then, the process cartridge B is inserted into the main assembly 14 of the apparatus. With the insertion, the process cartridge B makes a translational motion, that is, a linear motion inclined downward. When the process cartridge B is further inserted, the boss 18 of the process cartridge B is seated on the main assembly side positioning portion 16c in the inlet of the guide groove 16. Simultaneously, the free end 19a of the rib 19 is abutted to a stopper surface 16a of the guide groove 16 by a moment about the boss 18 produced by the weight of the process cartridge B. The ~~gravity~~ center of gravity of the process cartridge B is at rib 19 side of the boss 18. Thus, the drum gear 51a (Figure 5) fixed to an end of the photosensitive drum 7 is brought into meshing engagement with a driving gear 22 (Figure 2) provided in the main assembly 14, so that a driving force can be transmitted to the process cartridge B.

Please replace paragraph starting at page 22, line 4 with the following amended paragraph:

Then, the cover member 15 is closed, by which the shutter opening lever 55, which is interrelated with the cover member, is rotated in the clockwise direction about the shaft 55c from a position 55a to a position 55b, so that it is engaged with a pin 28a provided on the a drum shutter member 28 as shown in Figure 10, and the drum shutter member 28 is opened about a pin 29 mounted to the cleaner container 13 against a spring force of a spring 27, thus opening a transfer opening 13n. The coil spring 27 is fitted around the pin 29, and one end thereof is engaged to the cleaner container 13, and the other end is engaged to the drum shutter member 28,

and therefore, when the cover member 15 is open or when the process cartridge B is outside the main assembly 14, the drum shutter member 28 closes the transfer opening 13n by the spring force of the coil spring 27.

Please replace paragraph starting at page 22, line 21 with the following amended paragraph:

When the process cartridge B is to be taken out, the cover member 15 is opened, which rotates the shutter opening lever 55 ~~is rotated~~ about the shaft 55c to return from the position 55b to the position 55a. Then, drum shutter member 28 rotates about the pin 29 by the spring force of the coil spring 27, thus closing the transfer opening 13n. The process cartridge B is pulled up such that ~~in~~ the boss 18 is away from the positioning portion 16c, and thereafter, the process cartridge B is further pulled up such that ribs 19 are guided by the guide grooves 16.

Please replace paragraph starting at page 23, line 6 with the following amended paragraph:

~~The~~ A description will be provided ~~made~~ as to the structure of the cartridge frame. The cartridge frame is made of polystyrol resin material by injection molding, and as shown in Figure 4, a lower developing frame 12b is welded to a side of ~~the~~ a developing device frame 12a, and a cap member 12c is welded to the upper portion, thus constituting a toner developing container 12. A cap member 13b is welded to a top of a cleaning frame 13a to constitute an integral

cleaner container 13. Then, the cleaner container 13 is coupled with the toner developing container 12 to constitute a cartridge frame.

Please replace paragraph starting at page 24, line 3 with the following amended paragraph:

When the developing means is mounted in place, as shown in Figures 4, 13, a toner feeding member 10b is mounted in the developing device frame 12a, and thereafter, the cap member 12c is welded to the developing device frame 12a. Subsequently, a toner seal 31 in the form of a film is welded on a surface 12a5 (called the toner seal sticking seat surface) of the seat formed around the circumference of the toner supply opening 12a1 of the toner developing container 12 to seal the opening 12a1. Then, the toner is filled through the toner filling opening 12a2, and thereafter, the filling opening 12a2 is plugged by a cap 32 to seal the toner accommodating portion 10a. The toner seal 31 sealing the toner supply opening 12a1, as shown in Figure 13, is folded back at one longitudinal end of the opening 12a1, and the free end thereof is extended out through a slit 12a8 of the developing device frame 12a. The free end of the toner seal 31 is nipped by fingers of the user and is pulled out when the user starts use of the process cartridge B.

Please replace paragraph starting at page 24, line 23 with the following amended paragraph:

When it is pulled out, the ~~sealing~~ sealing is not complete at the portion where the toner seal 31 extends through the toner developing container 12.

Please replace paragraph starting at page 25, line 25 with the following amended paragraph:

Then, the lower developing frame 12b is welded to the developing device frame 12a. As shown in Figure 8, the developing device frame 12a is provided at the opposite longitudinal ends of the toner supply opening 12a1 with arcuate portions 12a6 at which the end seals 34 are to be mounted. A flat flange 12a16 is extended between the arcuate portions 12a6 below the toner seal sticking seat surface 12a5, and the flange 12a16 is substantially perpendicular to the seal sticking seat surface 12a5. On the other ~~dead~~ hand, lower developing frame 12b is engaged with you in the developing device frame 12a at the longitudinally opposing surfaces of the arcuate portions 12a6. Therefore, in consideration ~~concentration~~ of manufacturing errors, the lower developing frame 12b has a length which is smaller than the distance between the opposing surfaces of the arcuate portion 12a6 by $2 \times g$, where g is a gap at each end ~~ends~~. The flange 12a16 is provided with holes 12a17, and the lower developing frame 12b is provided with dowels 12b3 for engagement with the holes 12a17, respectively. With the dowels 12b3 being in engagement with the respective hole 12a17, the bottom surface of the lower developing frame 12b and the top surface of the flange 12a16 of the developing device frame 12a are welded to

each other. By doing so, the gap g is formed between the arcuate portion 12a6 and the lower developing frame 12b at each end. The dimension of the gap g is not constant when the lower developing frame 12b is fixed to the developing device frame 12a.

Please replace paragraph starting at page 26, line 27 with the following amended paragraph:

When the lower developing frame 12b is engaged with the developing device frame 12a, a sealing material 39, such as a felt, is inserted between the developing device frame 12a and each of the longitudinal opposite ends of the lower developing frame 12b (Figure 45).

Please replace paragraph starting at page 27, line 6 with the following amended paragraph:

Each of the opposite ends of the lower developing frame 12b is provided with an outward projection 12b2 (Figure 8). The developing device frame 12a is provided at each of the end portions with a recess 12a18 for engagement with ~~a~~ the projection 12b2 when the dowels 12b3 are engaged with the holes 12a17 for the purpose of welding or ~~bombing~~ bonding of the lower developing frame 12b. As shown in Figure 20, a gap g1 is provided between the recess 12a18 and the projection 12b2. The gap is substantially equal to the gap g formed between the lower developing frame 12b and the arcuate portion 12a6.

Please replace paragraph starting at page 28, line 5 with the following amended paragraph:

As shown in Figures 17, 18, and 19, when the lower developing frame 12b is welded to or bonded to the developing device frame 12a, a slit 12d is provided between the arcuate portion 12a6 and the lower developing frame 12b.

Please replace paragraph starting at page 28, line 10 with the following amended paragraph:

The slit 12d, as shown in Figures 21 to 23, is on an optical path of a laser beam passing through a gap (development gap) formed between the photosensitive drum 7 and the developing roller 10d provided by the spacer roller 10d1 (Figures 46 and 52) which is disposed ~~to~~ at each of the opposite and portions of the photosensitive drum 7 and the developing roller 10d. The ~~optical~~ Optical path passes through the slit 12d, a slit 10e6 provided in the metal blade 10e2 and a hole 13b1 formed in the cap member 13b.

Please replace paragraph starting at page 28, line 20 with the following amended paragraph:

In ~~Figures~~ Figure 21, the laser beam emitted from the laser source 86 has a width which is larger than the gap (~~approx.~~ approximately 300 μ m) between the photosensitive drum 7 and the developing roller 10d. The laser beam emitted from the laser source 86 travels through the hole 13b1, the slit 10e6, the gap between the photosensitive drum 7 and the developing roller 10d and

the slit 12d, and is then received by a photoreceptor 87. The width of the laser beam received by the photoreceptor 87, is measured in a direction parallel with the face of the sheet of the drawing of Figure 21. Therefore, the development gap can be detected.

Please replace paragraph starting at page 29, line 6 with the following amended paragraph:

The measurement of the gap between the photosensitive drum 7 and the developing roller 10d using the laser beam, is effected at each of opposite longitudinal ends of the photosensitive drum 7 (two positions). Therefore, the hole 13b1, ~~the slit~~ and the slits ~~slit~~ 10e6, 12d are each provided at at least two positions (adjacent opposite longitudinal ends).

Please replace paragraph starting at page 30, line 1 with the following amended paragraph:

As shown in Figures 14 and 16 ~~Figure 4~~, a seal 35 of urethane foam or the like is mounted and extended between blade mounting seat surfaces 12a4 formed above the toner discharging opening 12a1 of the toner discharging, and the developing blade 10e is screwed on the blade mounting seat surface 12a4 with the seal 35 therebetween. By doing so, the seal 35 is compressed between the metal blade 10e2 and a developing device frame 12a so that sealing is accomplished between the metal blade 10e2 and the developing device frame 12a.

Please replace paragraph starting at page 31, line 16 with the following amended paragraph:

Each of the development holders 36, 37 is provided with an integral arm portion 38 functioning as a connecting portion for ~~connection did in~~ connecting the toner developing container 12 and the cleaner container 13.

Please replace paragraph starting at page 32, line 2 with the following amended paragraph:

Referring to Figures 7, 11, 24, 25, and 26, ~~the~~ a description will be provided ~~made~~ as to the coupling between the toner developing container 12 and the cleaner container 13. Figures 7 and 11 are a side view and a perspective view, respectively, illustrating the coupling between the containers 12, and 13; Figure 26 shows the inside of the coupling portion; and Figures ~~24,~~ 24 and 25 are side views of the ~~copper~~ upper end portion of the toner developing container 12. The containers 12 and 13 ~~12, 13~~ are rotatably coupled through the arms 38 at the opposite ends. Since the covering structures at the left and right ends are substantially the same, ~~therefore, the~~ a description will be provided ~~made~~ as to only one end. However, the portions which ~~a~~ are different between the left and right hands will be described for the respective ends.

Please replace paragraph starting at page 32, line 17 with the following amended paragraph:

As shown in Figures 11 and 24, the developing device frame 12a is provided with an integral spring mounting portion 12a28, on which a compression coil spring 40 is mounted. The position of the compression coil spring 40 is adjacent one of the longitudinal ends of the developing device frame 12a, and is away from the arm portion 38 in the direction perpendicular to the longitudinal direction. The compression coil spring 40 is extended out in parallel with the arm portion 38. At a free end portion of the arm portion 38, ~~F=1~~ at the longitudinal end of the developing device frame 12a where the compression coil spring 40 is provided, a through-hole 38b is provided for receiving a pin 41, which will be described hereinafter. As shown in Figure 26, an outer wall 13q of the cleaner container 13 is provided with a hole 13c for receiving the pin 41, and an inner wall 13d thereof is provided with a hole 13e for being press fitted by the pin 41. The hole 13c and the hole 13e are aligned along a line parallel with the photosensitive drum 7. An elongated bore 38b1 is formed in the arm portion 38 and the other end of the cleaner container 13, and a line connecting the center of the elongated bore 38b1 and the hole 38b passes through the centers of the holes 13c, 13e. The elongated bore 38b1 is elongated in a direction parallel with a line connecting the center of the photosensitive drum 7 and the center of the developing roller 10d, and a width of the elongated bore 38b1 is equal to the diameter of the pin 41.

Please replace paragraph starting at page 33, line 19 with the following amended paragraph:

When the toner developing container 12 and the cleaner container 13 are coupled together with each other, as shown in Figures 7 and 11, the arm portion 38 of the toner developing container 12 is inserted into the recess 13h of the cleaner container 13, and the pin 41 is penetrated through the hole 13c, ~~13c~~ 13e of the cleaner container 13, the through hole 38b, of the arm portion 38 and the elongated bore 38b1 in the order named, and is press-fitted into the ~~hole~~ holes 13e, 13e of the inner wall 13d. By doing so, the toner developing container 12 and the cleaner container 13 are rotatably coupled for rotation about the pin 41. At this time, the compression coil spring 40 mounted to the developing device frame 12a is compressed ~~out~~ by the abutment to the spring seat 13f (Figure 26) of the cleaner container 13. The photosensitive drum 7 and the developing roller 10d are urged toward each other about the pin 41 so that spacer rollers 10d1 (Figure 46) of the developing roller 10d are press-contacted to the photosensitive drum 7.

Please replace paragraph starting at page 35, line 2 with the following amended paragraph:

By doing so, by the compression coil spring 40 and the tension coil spring 59, the developing roller 10d mounted in the toner developing container 12 is urged toward the photosensitive drum 7 mounted in the cleaner container 13, so that spacer rollers 10d1 at the

opposite longitudinal ends of the developing roller 10d are contacted to the photosensitive drum 7 by which the developing roller 10d is correctly position relative to the photosensitive drum 7. The drum gear 51a ~~fix~~ fixed to the end of the photosensitive drum 7 is brought into meshing engagement with the developing roller gear 10f fixed to the ~~and~~ end of the developing roller 10d, so that a driving force can be transmitted.

Please replace paragraph starting at page 36, line 22 with the following amended paragraph:

First, the development holders 36, 37 ~~fix~~ fixed to the opposite ~~end~~ ends of the developing device frame 12a are removed. The small screw 56 fastening the development holder 36 and the bearing 33a to the developing device frame 12a, as shown in Figure 15, is removed, and the development holder 36 is moved longitudinally outwardly. Then, the developing roller gear 10f is pulled off the developing roller shaft 10d2. The bearing 33a supporting the developing roller 10d is removed from the shaft 10d2 of the developing roller 10d. The developing roller 10d is pulled in the actual direction to remove it from the bearing 33b of the development holder 37, and the developing roller 10d is removed from the toner developing container 12.

Please replace paragraph starting at page 37, line 20 with the following amended paragraph:

After the developing roller 10d has been removed, the developing blade 10e is removed. The developing blade 10e is removed ~~a movement~~ by unthreading the small screws 10e4 which fixes the developing blade 10e to the blade mounting seat surface 12a4 of the developing device frame 12a as shown in Figure 14, and then moving the developing blade 10e away from the blade mounting seat surface 12a4.

Please replace paragraph starting at page 38, line 9 with the following amended paragraph:

Here, all the elements which should be removed from the toner developing device frame 12a have been removed. The drum shutter member 28 is not removed ~~by these~~ retained.

Please replace paragraph starting at page 39, line 27 with the following amended paragraph:

The sealing material 64 is plastically deformable. Examples of such sealing material 64 includes polymeric materials having a curing property or polymeric materials having a thermoplastic property. The ~~sealing~~ sealing materials include a silicon bonding material ~~bond~~ which is a polymeric material having a curing property ~~silicone bonding material~~. The polymeric material having a thermoplastic property includes hot melt plastic resin material.

Please replace paragraph starting at page 40, line 9 with the following amended paragraph:

When the silicon bonding material ~~bond~~ is used as the sealing material 64, for example, the sealing material is filled, and it is left for approximately ~~approx.~~ 6 hours ~~hour~~, and the cover side seal 62 is removed after it is dried.

Please replace paragraph starting at page 40, line 14 with the following amended paragraph:

As shown in Figure 33, a gap S exists ~~displays~~ between the longitudinal end of the elastic blade 10e1 of the developing blade 10e and the end seal 34. During the image forming operation, the toner does not leak out in the longitudinal direction by the ~~provisions~~ provision of the end seal 34 despite the existence of the gap S. However, during the transportation, the toner is liable to leak out since the corner portion between the end seal 34 and a seal 35 is a linear portion 34b of the end seal 34 so that it is not in close contact with the developing roller 10d. Therefore, a side pad is provided.

Please replace paragraph starting at page 42, line 15 with the following amended paragraph:

Therefore, an end lateral seal 66 of an elastic member is mounted against the end seal 34 provided at each of one and the other ends of the developing roller 10d ~~at the~~ longitudinally inside of the developing roller 10d and at the opposite side from the side where the toner accommodating portion 10a is provided.

Please replace paragraph starting at page 42, line 22 with the following amended paragraph:

Figure 35 shows an end lateral seal developed into a plane. Figure 36 is a sectional view taken along a line A-A. For the purpose of easy understanding, gaps are shown between members. Actually, however, the members shown in Figure 36 ~~are contacted~~ contact each other without gaps. As shown in the figures ~~Figure~~, the end lateral seal 66 is stuck to the lower developing frame 12b at the corners of the sealing material 64 and the end seal 34, by adhesive material. As will be described hereinafter, the jaw seal 42 is stuck usually first in the remanufacturing process. By doing so, the end lateral seal 66 is closely contacted to the end seal 34, the sealing material 64 and the lower developing frame 12b. The gap S1 among the jaw seal 42, the lower developing frame 12b and ~~an~~ the end lateral seal 66 is reduced by the side cover seal 69 (Figures 44 and 45) and is sealed from the outside.

Please replace paragraph starting at page 44, line 2 with the following amended paragraph:

Figure 37 is a front view of the cut-away portion constituting the slit 12d as seen in a direction perpendicular to the longitudinal direction of a developing roller 10d. As shown in Figure 38, the jaw groove filling seal 68 ~~is filled~~ fills substantially the entire width of the cut-away portion 12d.

Please replace paragraph starting at page 44, line 18 with the following amended paragraph:

The sealing material 68a is bent by 90° from a corner A where the arcuation of the arcuate portion 12a6 ends (Figure 41) toward the outside, by which the slit 12d is substantially closed, as shown in Figure 38. However, the complete closure of the slit is not intended. As shown in Figure 41, if the upper portion of one surface 68b of the sealing material 68a is partly overlapped with the end of the end seal 34, the toner may pass through between the end lateral seal 66 and the jaw seal 42 to reach the slit 12d. It will suffice if the leakage of such toner is prevented, and therefore, as shown in Figure 40, a gap g2 may be provided between the lateral wall 12d1 of the cut-away portion 12d and the sealing material 68a ~~38a~~ (the side cover seal 69 which will be described hereinafter).

Please replace paragraph starting at page 45, line 7 with the following amended paragraph:

After mounting various seals described in the foregoing, the jaw seal 42 is stuck on the seat surface 12b5. As shown in Figures 42 and 43 ~~Figure 42, 43~~, the jaw seal 42 is stuck. The opposite longitudinal ends of the jaw seal 42 ride on the associated end seals 34 and are bonded thereto by adhesive material. As shown in Figure 45, the free end, extending in the longitudinal direction of the process cartridge, of the jaw seal 42 is pressed against the developing roller codirectionally with respect to the peripheral movement of the surface of the developing roller. ~~(in~~ In this embodiment, the new cartridge is not provided with the jaw seal, since the toner in the developer container is confined therein by the seal 31).

Please replace paragraph starting at page 45, line 27 with the following amended paragraph:

As shown in Figure 44, to such a surface of the arcuate portion 12a6 of the developing device frame 12a ~~as is~~ that does not faced face to the developing roller 10d, there is provided a rib 12a36. The lower developing frame 12b is provided with a rib 12b6 which is parallel with the rib 12a36 with the longitudinal gap g between the lower developing frame 12b and the arcuate portion 12a6 of the developing device frame 12a disposed between the ribs. The side cover seal 69 has a width which is equal to the gap between the ribs 12a36 and 12b6 P. The side cover seal 69 is stuck and extended from a position C at a free end (in the direction of a width, that is, perpendicular to the longitudinal direction) of the flange 12a16 (Figures 4 and 8) of the

developing device frame 12a ~~the~~ to cover the developing device frame 12a and to cover the gap g which is in the form of a crank, and is then folded back over the free end portion D to embrace the groove filling seal 68 and the jaw seal 42 end as shown in Figure 45. By doing so, the jaw seal 42 at a longitudinal extension of the jaw seal sticking seat surface 12b5 of the lower developing frame 12b is closely contacted to the jaw groove filling seal 68, and the jaw seal 42 is not easily removed from the sticking seat surface 12b5 at an edge of a side surface of the seal 68.

Please replace paragraph starting at page 46, line 26 with the following amended paragraph:

When a developing device frame 12a is deformed, for example, a gap is produced ~~between~~ with the blade 10e2. Here, the seal 35 is long, therefore, the sealing property is relatively not very good. In view of this, a re-assembling of this embodiment will be described according to which the performance of the toner developing container 12 is substantially the same as a new one.

Please replace paragraph starting at page 47, line 7 with the following amended paragraph:

A seal is provided in addition to the seal 35 in consideration of the case that the sealing property of the seal 35 of the toner developing container 12 deteriorates ~~is deteriorated~~.

Please replace paragraph starting at page 47, line 11 with the following amended paragraph:

The developing blade 10e having been removed is subjected to simultaneous air suction and air blowing ~~blow~~, or the like such that deposited toner is removed from the blade to clean it.

Please replace paragraph starting at page 47, line 24 with the following amended paragraph:

The bent portion ~~10e3~~ of the metal blade 10e2 of the developing blade 10e shown in Figure 16 is urged toward the seat 12a3 of the flange of the developing device frame 12a with the seal 35 compressed there between, and the holes 10e7 of the metal blade 10e2 are fitted around the positioning dowels 12a11 provided on the developing blade mounting seat surface 12a4. Then, a small screw 10e4 (only one longitudinal end portion of the metal blade 10e2 is shown) is threaded into the developing blade mounting seat surface 12a4 through the hole 10e7 provided adjacent each of the opposite longitudinal ends of the metal blade 10e2 so that developing blade 10e is fixed to the developing device frame 12a.

Please replace paragraph starting at page 48, line 19 with the following amended paragraph:

Then, the developing roller 10d is inspected, and it is determined whether or not it is reusable. If the determination is negative, that is, the ~~performers~~ performance does not satisfy a ~~predetermine~~ predetermined reference, the developing roller is replaced with a new one.

Please replace paragraph starting at page 48, line 24 with the following amended paragraph:

The developing roller 10d may be worn due to the friction with the developing blade 10e. Therefore, when the statistic probability that replacement is necessary is determined on the basis of the metal inspections during development thereof or remanufacturing thereof, the developing roller may be replaced with a new one without the inspection, and by doing so, the remanufacturing operation is efficient.

Please replace paragraph starting at page 49, line 5 with the following amended paragraph:

In the inspection of the developing roller 10d, it is disassembled into the main body of the developing roller, the magnet 10c, the bearings 33a, 33b, spacer rollers 10d1, a roller electrode (unshown), the developing roller gear 10f, and so on, are inspected, respectively, to find reusable parts. The non-reusable parts are replaced with new ones.

Please replace paragraph starting at page 49, line 23 with the following amended paragraph:

The development holder 37 is engaged to the developing device frame 12a. A small screw 57 is threaded into the developing device frame 12a through the development holder 37 so that development holder 37 is fixed to the developing device frame 12a. Then, a journal hole at an end of the developing roller 10d is engaged with a bearing 33b of the development holder 37.

Subsequently, at a longitudinal end which is opposite from the bearing 33b, the bearing 33a is engaged in the journal at the other end of the developing roller 10d, and the bearing 33a is aligned with the developing device frame 12a. Into a D-shaped shaft portion provided at the journal end of the developing roller 10d projected outwardly beyond the bearing 33a, the developing roller gear 10f having a hole which has the complementary shape and size. Then, the engaging portion 36a of the development holder 36 is engaged with a cylindrical engaging portion 33a3 of the bearing 33a. At this time, one end of the magnet 10c is engaged with a D-shaped hole 36d which is provided longitudinally outwardly beyond the bearing hole. The shaft portion at the end of the magnet 10c has the complementary ~~shape~~ shape and size with the D-shaped hole 36d. Then, a small screw 56 is threaded into a female screw 12a13 of the developing device frame 12a through the hole 36c of the development holder 36 and the hole 33a1 of the bearing 33a. By doing so, the development holders 37, 36 are fixed to the developing device frame 12a, and the developing roller 10d is supported by the toner developing container.

Please replace paragraph starting at page 51, line 3 with the following amended paragraph:

The toner developing container 12 to which the developing roller 10d is mounted is shown in Figure 11. A new toner developing container 12 ~~have~~ having a remanufactured toner developing container 12 ~~are~~ is the same as seen in the direction shown in Figure 11.

Please replace paragraph starting at page 51, line 9 with the following amended paragraph:

If the toner developing container 12, particularly, the surface on which the seal 35 is stuck ~~this is~~ deformed during transportation, a gap is formed between the metal blade 10e2 and the seal 35. So, there is a ~~liability~~ risk that toner leaks between the longitudinal end edge of the metal blade 10e2 and the developing device frame 12a.

Please replace paragraph starting at page 51, line 25 with the following amended paragraph:

The inclining direction of the free end 60a extends in the downstream direction with respect to the peripheral movement of the developing roller 10d toward the ~~longitudinally interior thereof in the longitudinal direction thereof inside~~. By doing so, the toner deposited on the developing roller 10d is prevented from moving in the longitudinally outward direction, so that toner returns from the end of the jaw seal 42 into the area between the jaw seal 42 and the developing roller 10d.

Please replace paragraph starting at page 52, line 12 with the following amended paragraph:

By doing so, the seal sticking step for sticking the seal for preventing the toner from leaking, over the metal ~~late~~ blade portion of the developing blade 10e and the toner developing container 12 is completed.

Please replace paragraph starting at page 52, line 27 with the following amended paragraph:

In an alternative ~~of the~~ method, the toner may be filled before the developing blade 10e and the developing roller 10d are remounted. In such a case, as shown in Figure 56, the toner developing container 12 is placed with the toner supply opening 12a1 faced up and the toner accommodating portion ~~10-a~~ 10a at a lower position. A free end of a funnel 47 is inserted into the opening 12a1, and the toner ~~the~~ is allowed to let fall from the toner bottle 48 onto the funnel 47. After the toner filling, the developing blade 10e and the developing roller 10d are remounted in the same manner as with the case described above. A metering supplying device provided with an auger may preferably be provided in the funnel, since then the toner can be efficiently supplied.

Please replace paragraph starting at page 54, line 14 with the following amended paragraph:

Therefore, no toner leaks ~~is leaked~~ out of the inside of the toner developing container 12 having the developing roller 10d and the developing blade 10e during normal transportation and handling.

Please replace paragraph starting at page 54, line 26 with the following amended paragraph:

In Figure 11, the arm portions 38 of the toner developing container 12 are inserted into the recesses 13h of the cleaner container 13. As shown in Figure 26, the through hole ~~38b~~ 38b and the elongated bore 38b1 of the arm portion 38 are aligned with the holes 13c on the outer wall surface 13q of the cleaner container 13. When the hole 13c and the through hole 38b and the elongated bore 38b1 are aligned, the through hole ~~38b~~ 38b and the elongated bore 38b1 are aligned with the holes 13e in the surface 13d of the inner wall of the cleaner container 13. Then, the pin 41 is inserted through the holes 13c of the cleaner container 13 and the hole 38b ~~38b~~ and the elongated bore 38b1 of the arm portion 38 of the toner developing container 12. Further, the pin 41 is press-fitted into ~~he~~ the hole 13e in the inner wall of the cleaner container 13. As shown in Figure 7, the end portions of the tension coil spring 59 are hooked on the spring hook 12a29 of the toner developing container 12 and the spring hook 13p of the cleaner container 13, and thus the tension coil spring 59 is stretched. By this arrangement, the photosensitive drum 7 is press-contacted to the spacer rollers 10d1 at the end portions of the developing roller 10d.

Please replace paragraph starting at page 56, line 3 with the following amended paragraph:

Figure 11 is a perspective view showing the cleaner container 13 having the photosensitive drum 7, the charging roller 8, and the cleaning blade 11a. Figure 47 is a longitudinal sectional view in which ~~wherein~~ the photosensitive drum 7 is mounted to the cleaner

container 13. Figure 48 shows a structure for supporting the charging roller 8 on the cleaner container 13.

Please replace paragraph starting at page 57, line 9 with the following amended paragraph:

As shown in Figure 48, the shaft 8a of the charging roller 8 is ~~rotatably~~ rotatably engaged in charging roller bearings 8c which is slidably engaged in the guide groove 13g extended substantially on a line connecting the centers of the photosensitive drum 7 and the charging roller 8. The charging roller bearing 8c is urged toward the photosensitive drum 7 by the compression coil spring portion 8b which is compressed between the charging roller bearing 8c and the spring seat 13s at one end of the guide groove 13g, so that the charging roller 8 is press-contacted to the photosensitive drum 7. The charging roller 8 is driven by the photosensitive drum 7. The compression coil spring 8b is ~~held~~ held in the bearing 8c.

Please replace paragraph starting at page 57, line 23 with the following amended paragraph:

An unshown electrode is contacted to the metal shaft 8a of ~~the available from the~~ the charging roller 8, and extends ~~is extended~~ to an outside of the process cartridge B. The outer contact portion of the electrode is electrically connected with a contact portion of the main assembly 14 of the image forming apparatus which is connected with an outer contact portion in the main assembly.

Please replace paragraph starting at page 58, line 12 with the following amended paragraph:

The A description will be provided ~~made~~ as to dismounting of the photosensitive drum 7, the charging roller 8 and the photosensitive drum 7 from the cleaner container 13.

Please replace paragraph starting at page 58, line 16 with the following amended paragraph:

The photosensitive drum 7 is dismounted from the cleaner container 13 when the shafts 53a, 53b are pulled out of the center holes 51b, 52b of the ~~flange~~ flanges 51, 52 ~~flanges 51, 52,~~ shown in Figure 47.

Please replace paragraph starting at page 58, line 20 with the following amended paragraph:

When the photosensitive drum 7 is dismounted, the charging roller 8 is moved in a direction perpendicular to its axis, so that bearings 8c are moved along the guide groove 13g, by which the bearing 8c ~~if is~~ dismounted from the guide groove 13g together with the charging roller 8. The bearing 8c is disengaged from the shaft 8a, and the compression coil spring 8b is dismounted. In this manner, an opening G between the cleaning blade 11a and the receptor sheet 11b and extending in the longitudinal direction appears

Please replace paragraph starting at page 59, line 4 with the following amended paragraph:

The removed photosensitive drum 7, the charging roller 8c and the bearings 8c, are subjected to inspections to determine whether to reuse them or not, and if it they should be reused, it is assembled into the cleaner container 13 in the reassembling operation which will be described hereinafter, and if not, a new part or parts are used. Usually, however, the photosensitive drum 7 has such a long lifetime that it is still usable at the time when the toner is used up.

Please replace paragraph starting at page 59, line 22 with the following amended paragraph:

Figure 49 shows a cleaning device for the cleaner container. The cleaner container 13 is set in a casing 70a of the cleaning device 70. The casing 70a seals the inside against the atmosphere. The cleaner container 13 is impacted by an impacting device 77 which is carried on the pivoting device 73, and the residual toner is sucked out of the ~~set~~ casing by a suction device 79. Simultaneously, the cleaner container 13 is swung about a shaft 76b by a swing device 73.

Please replace paragraph starting at page 60, line 5 with the following amended paragraph:

Figure 50 shows details of an air block 79a of the suction device 79. The air block 79a is

generally hollow, and has a close contact surface 79g to be contacted to the edge of the opening G of the cleaner container 13, the close contact surface 79g being coated with a rubber-like seal member 79b except for the ejection opening 79d and the suction opening 79e. An air supply tube 79c for supplying the air into the cleaner container 13 is disposed in the air block 79a, and an air blow opening 79d opens adjacent a longitudinal end of the above-described close contact surface 79g. Furthermore, a suction tube 79f is disposed in the air block 79a, and the suction opening 79e of the suction tube 79f is disposed adjacent the other end of the close contact surface 79g. The close contact surface 79g having the air blow opening 79d and the suction opening 79e is contacted to the cleaning blade 11a and the receptor sheet 11b of the cleaner container 13 which has been moved in the direction of arrow K3 to a cleaning position M2 by a table 72, so that in the opening G between the edges ~~thereof, of them are~~ is completely covered. This is indicated by chain lines in the opening G in Figure 50, more particularly, the sealing range A1, air blowing opening A2 and the air discharging outlet A3. The sealing range A1, the air blowing opening A2 and the air discharging outlet A3 corresponds to the close contact surface 79g, the air blow opening 79d and the suction opening 79e, respectively. In the suction device 79, compressed air Q1 is supplied into the cleaner container 13 closely contacted to the air block 79a from the air supply tube 79c through the air blow opening 79d closely contacted to the air blowing opening A2 and through the opening G (arrow Q2) to ~~scattering~~ scatter the residual toner; and the residual toner and the air are sucked from the cleaner container 13 through the suction opening 79e closely contacted to the air discharging outlet A3 (arrow Q3) into the suction tube 79f (arrow Q4).

Please replace paragraph starting at page 61, line 17 with the following amended paragraph:

The residual toner ~~leaked~~ leaking out of the air block 79a and cleaner container 13, is sucked by an auxiliary suction device (unshown) with the atmosphere in the suction device 75 through the ambience suction opening 78, as shown in Figure 49.

Please replace paragraph starting at page 61, line 22 with the following amended paragraph:

Referring to Figures 49 and 50 and a flow chart of Figure 51, ~~the~~ a description will be provided ~~made~~ as to the cleaning method of the cleaner container 13 and the operation of the cleaning device 70 in detail.

Please replace paragraph starting at page 61, line 26 with the following amended paragraph:

The operation of the cleaning device (cleaner) 70 is started at step (S1). Then, the cleaner container 13 to be cleaned is placed on the top of a table 72 which is at a home position at this time (S2). The cover 70b is closed (S3), which event is detected by a sensor (door switch) 70d (S4), and an air cylinder of a clamping device (unshown) is actuated (S5), by which the top side of the cleaner container 13 is pushed.

Please replace paragraph starting at page 62, line 8 with the following amended paragraph:

By this method, the cleaner container 13 is clamped on the table 72 at a predetermined position (S6). An air cylinder 75 having a piston rod directly connected to the table 72 is actuated (S7), so that table 72 moves from the home position M1 on the slide base 71 to a cleaning position M2 in the swing device 73 (S8), and the opening G of the cleaner container 13 is closely contacted to the surface 79g of the suction device 79.

Please replace paragraph starting at page 62, line 16 with the following amended paragraph:

Then, a motor 77a is actuated (S9), and the impacting device 77 is started, by which the pin 77b of the crank to which the shaft of the motor 77a is fixed is swung about a pin 77d supporting the yoke 77c. Impact is applied to a point P (Figure 50) on the top side of the cleaner container 13 by a hammer ~~hammer~~ 77g fixed to an end of the leaf spring arm 77e fixed to the yoke 77c (S10). By doing so, the residual toner deposited on the inner wall of the cleaner container 13 is forced to fall, and the mobility of the residual toner is enhanced. A rotary actuator 76 is started (S11), and the swing table 73a of the swing device 73 ~~reciprocate~~ reciprocates about a shaft 76b swingably supporting the swing table 73a within the range of $\alpha = 0-80^\circ$. The swing table 73a is stopped by abutting stoppers 71a, 71b, the positions of which are adjustable. A stop valve (unshown) for the compressed air is opened (S13, S14) to supply the compressed air into the cleaner container 13 through the air blow opening 79d (Figure 50) and

the opening G, and simultaneously, the air in the cleaner container 13 is ~~succed~~ sucked through the opening G and the suction opening 79e together with the residual toner. The operation is continued for a proper period.

Please replace paragraph starting at page 63, line 13 with the following amended paragraph:

The swing table 73a is swung through one reciprocation (S15). A rotary actuator 76 is deactivated (S16), and the horizontal position N1 of the swing table 73a is checked (S17), and then, the motor 77a is deactivated (S18, S19), so that the impact imparted by the hammer to the position N1 ends. The stop valve is closed (S20, S21). The air cylinder 75 is urged in the resetting direction (S22), and then, the table 72 located at the cleaning position M2 is returned to the home position MI (S23). In response to this, an unshown clamping air cylinder is deactivated (S24), and the clamp of the cleaner container 13 relative to the table 72 is released (S25). Then, the cover 70b is opened (S26), and the cleaner container 13 is taken out of the casing 70a (S27). The method then determines whether the cleaning of the next cleaning container will be performed (S28) and if not, the cleaning device 70 is turned off (S29). This is the end of the cleaning operation for the cleaner container 13.

Please replace paragraph starting at page 64, line 2 with the following amended paragraph:

In the cleaning step, the impact to the cleaner container 13 by the device 77 continues in the period between the steps S9 and S18 in the flow chart of Figure 51, and contemporaneously therewith, the swing action of the cleaner container 13 and the suction of the residual toner are carried out. Thus, the residual toner deposited on the inner wall or the like of the cleaner container 13 ~~are~~ is beaten out, and the residual toner is smoothly moved toward the opening G. The compressed air blown out from the air blow opening 79d is effective to scatter around in the cleaner container 13, and the residual toner is ~~succed~~ sucked from the suction opening 79e. By the series of the operations, the residual toner can be substantially completely removed from the cleaner container 13.

Please replace paragraph starting at page 65, line 5 with the following amended paragraph:

Then, a charging roller 8 engaged with the bearings 8c to which the compression coil springs 8b are mounted, is mounted on the shaft 8a. This is done by engaging the bearing 8c into the guide groove 13g with the compression coil spring 8b at the leading side. Thereafter, as shown in Figures 47, the photosensitive drum 7 is engaged between the end walls of the cleaner container 13, and the center holes ~~51b, 52b~~ of the flanges 51, 52 are aligned with holes 13k, 13m in the end walls at the opposite ends of the cleaner container 13, and then, the drum shafts 53a,

53b are engaged into the holes 13k, ~~51b, 52b~~, 13m and the center holes of the flanges 51 and 52.

The drum shafts 53a, 53b are press-fitted in the holes 13m, 13k, and the drum shafts 53a, 53b are slidably engaged in the center holes of the flanges 51 and 52 ~~holes 51b, 52b~~. The photosensitive drum 7 in the unit is rotatable on the drum shafts 53a, 53b.

Please replace paragraph starting at page 65, line 24 with the following amended paragraph:

When the photosensitive drum 7 and the developing roller 10d ~~are contacted~~ contract to each other, the drum gear 51a and the developing roller gear 10f are in meshing engagement with each other. When the process cartridge is transported with the drum gear 51a and the developing roller gear 10f are in meshing engagement with each other, the tooth surfaces of the gears are in contact, and therefore, they may be rotated by impact or vibration. If the direction of the rotation is as indicated by an arrow A in Figure 52 (the same direction as in the image forming operation), there is no problem. However, the direction of the rotation is not assured, since the vibration or the impact during the transportation occurs at random. If the photosensitive drum 7 rotates in the direction indicated by an arrow B, that is, if the photosensitive drum 7 and the developing roller 10d are rotated in the direction opposite from the normal direction, the toner may be leaked out through between the jaw seal 42 (blow-out preventing sheet) and the developing roller 10d, and in the worst-case, the seal 42 may be wound around the developing roller since the preventing sheet ~~is contacted to~~ contacts the developing roller counter-directionally. In addition, the scraper 60 mounted to each of the opposite ends of the developing blade 10e and functioning to guide the

toner inwardly at the opposite ends of the developing roller 10d can operate correctly when the developing roller 10d rotates in the normal ~~mat~~ direction, and therefore, if it is rotated in the wrong direction, the toner may leak out at the opposite ends of the developing roller 10d.

Please replace paragraph starting at page 67, line 9 with the following amended paragraph:

Referring to Figure 54, ~~the~~ a description will be provided ~~made~~ as to means for maintaining ~~the~~ a disengaged state or a large back clearance between the drum gear 51a and the developing roller gear 10f. In the case of Figure 53, a tape 81 is stuck over the toner developing container 12 and the cleaner container 13 with the drum gear 51a and the developing roller gear 10f disengaged from each other or with the large back clearance.

Please replace paragraph starting at page 68, line 16 with the following amended paragraph:

1. A remanufacturing method of remanufacturing a process cartridge B comprising:
 - (a) a step of preparing a used process cartridge B which comprises a toner developing container 12, a cleaning container 13 and pins for coupling ~~said~~ the toner developing container 12 and ~~said~~ the cleaning container 13 at opposite longitudinal ends of ~~said~~ the process cartridge B,

said the toner developing container 12 including a toner accommodating portion 10a, a toner supply opening 12a1, a developing roller 10d and a developing blade 10e;

~~said~~ the cleaning container 13 including an electrophotographic photosensitive drum 7;

(b) a container separating step of separating ~~said~~ the process cartridge B into ~~said~~ the toner developing container 12 and ~~said~~ the ~~developing~~ cleaning container by disengaging ~~said~~ the pins from ~~said~~ the process cartridge B;

(c) a developing roller ~~10d~~ the dismounting step of dismounting ~~said~~ the developing roller 10d from ~~said~~ the toner developing container 12 separated by ~~said~~ the container separating step;

(d) a developing blade ~~10e~~ the dismounting step of dismounting ~~said~~ the developing blade 10e from ~~said~~ the toner developing container 12 separated by ~~said~~ the container separating step;

(e) an elastic member 66 mounting step of mounting an elastic member 66 ~~to a~~ longitudinally inside of an end seal 34 provided adjacent each of opposite longitudinal ends of a or ~~said~~ the developing roller 10d, at a position laterally outside of ~~said~~ the end seal 34;

(f) a developing blade ~~10e~~ the mounting step of mounting a or ~~said~~ the developing blade 10e on a or ~~said~~ the toner developer container;

(g) a developing roller ~~10d~~ the mounting step of mounting a or ~~said~~ the developing roller 10d on ~~said~~ the toner developer container having ~~said~~ the developing blade 10e;

(h) a toner refilling step of refilling the toner into a or ~~said~~ the toner accommodating portion 10a of ~~said~~ the toner developing container 12 having ~~said~~ the developing blade 10e and ~~said~~ the developing roller 10d; and

(i) a container coupling step of coupling ~~said~~ the toner developing container 12 having ~~said~~ the developing blade 10e and ~~said~~ the developing roller 10d with a or ~~said~~ the cleaning container 13 by engaging a or ~~said~~ the pin 41 into them.

Please replace paragraph starting at page 70, line 16 with the following amended paragraph:

2. A method according to ~~Paragraph~~ paragraph 1, further comprising a flexible sheet 42 mounting step of mounting, after ~~said the~~ cut-away portion 12d sealing step and before ~~said the~~ toner refilling step, a flexible sheet 42 to ~~said the~~ toner developing container 12 so as to extend along the longitudinal direction of ~~said the~~ developing roller 10d when ~~said the~~ developing roller 10d is mounted to ~~said the~~ toner developing container 12.

Please replace paragraph starting at page 70, line 24 with the following amended paragraph:

3. A method according to ~~Paragraph~~ paragraph 2, wherein in ~~said the~~ flexible sheet 42 mounting step, each of longitudinal ends of ~~said the~~ flexible sheet 42 extends over a surface of ~~said the~~ elastic member 66 and a part of ~~said the~~ end seal 34.

Please replace paragraph starting at page 71, line 4 with the following amended paragraph:

4. A method according to ~~Paragraph~~ paragraph 2 or 3, further comprising a first and second side seal 64 mounting step of mounting, after ~~said the~~ flexible sheet 42 mounting step, a first side seal 64 continuously on a longitudinal end of ~~said the~~ flexible sheet 42 mounted on ~~said the~~ toner developing container 12 and ~~said the~~ toner developing container 12, and a second side

seal 64 continuously on the other longitudinal end of ~~said~~ the flexible sheet 42 and ~~said~~ the toner developing container 12.

Please replace paragraph starting at page 71, line 14 with the following amended paragraph:

By this, at a longitudinal extension of a portion of the seal 42 at ~~reach~~ which it is stuck on the toner developing container 12, the bent portion of the seal 68 is backed up, so that the toner leakage is effectively prevented.

Please replace paragraph starting at page 71, line 19 with the following amended paragraph:

5. A remanufacturing method of remanufacturing a process cartridge B comprising:

(a) a step of preparing a used process cartridge B which comprises a toner developing container 12, a cleaning container 13 and pins for coupling ~~said~~ the toner developing container 12 and ~~said~~ the cleaning container 13 at opposite longitudinal ends of ~~said~~ the process cartridge B;

~~said~~ the toner developing container 12 including a toner accommodating portion 10a, a toner supply opening 12a1, a developing roller 10d and a developing blade 10e;

~~said~~ the cleaning container 13 including an electrophotographic photosensitive drum 7;

(b) a container separating step of separating ~~said~~ the process cartridge B into ~~said~~ the toner developing container 12 and ~~said~~ the ~~developing~~ cleaning container by disengaging ~~said~~ the pins from ~~said~~ the process cartridge B;

(c) a developing roller ~~10d~~ to a dismounting step of dismounting ~~said~~ the developing roller 10d from ~~said~~ the toner developing container 12 separated by ~~said~~ the container separating step;

(d) a developing blade ~~10e~~ to a dismounting step of dismounting ~~said~~ the developing blade 10e from ~~said~~ the toner developing container 12 separated by ~~said~~ the container separating step;

(e) an elastic member 66 mounting step of mounting an elastic member 66 ~~to a~~ longitudinally inside of an end seal 34 provided adjacent each of opposite longitudinal ends of a or ~~said~~ the developing roller 10d, at a position laterally outside of ~~said~~ the end seal 34;

(f) a flexible sheet 42 mounting step of mounting a flexible sheet 42 to a or ~~said~~ the toner developing container 12 so as to extend along the longitudinal direction of ~~said~~ the developing roller 10d when ~~said~~ the developing roller 10d is mounted to ~~said~~ the toner developing container 12;

(g) a first and second side seal 64 mounting step of mounting a first side seal 64 continuously on a longitudinal end of ~~said~~ the flexible sheet 42 mounted on ~~said~~ the toner developing container 12 having the flexible sheet 42 and ~~said~~ the toner developing container 12 having the flexible sheet 42, and a second side seal 64 continuously on the other longitudinal end of ~~said~~ the flexible sheet 42 and ~~said~~ the toner developing container 12 having flexible sheet 42;

(h) a developing blade ~~10e~~ to a mounting step of mounting a or ~~said~~ the developing blade 10e on ~~said~~ the toner developer container having the flexible sheet 42;

(i) a developing roller ~~10d~~ mounting step of mounting a or ~~said~~ the developing roller 10d on ~~said~~ the toner developer container having the flexible sheet 42;

(j) a toner refilling step of refilling the toner into a or ~~said~~ the toner accommodating portion 10a of ~~said~~ the toner developing container 12 having ~~said~~ the flexible sheet 42; and

(k) a container coupling step of coupling ~~said~~ the toner developing container 12 having ~~said~~ the flexible sheet 42 with a or ~~said~~ the cleaning container 13 by engaging a or ~~said~~ the pin 41 into them.

Please replace paragraph starting at page 74, line 1 with the following amended paragraph:

6. A method according to ~~Paragraph~~ paragraph 1 or 5, wherein ~~said~~ the elastic member 66 is mounted on a side of ~~said~~ the end seal 34.

Please replace paragraph starting at page 74, line 12 with the following amended paragraph:

7. A method according to any one of ~~Paragraphs~~ paragraphs 1 to 6, wherein ~~said~~ the seal is made of a plastically deformable material.

Please replace paragraph starting at page 74, line 17 with the following amended paragraph:

8. A method according to any one of ~~Paragraphs~~ paragraphs 1 to 7, wherein ~~said the~~ toner refilling step is carried out through a toner filling opening after ~~said the~~ elastic member 66 mounting step, ~~said the~~ developing blade ~~10e~~ mounting step and ~~said the~~ developing roller ~~10d~~ mounting step.

Please replace paragraph starting at page 74, line 26 with the following amended paragraph:

9. A method according to any one of ~~Paragraphs~~ paragraphs 1 to 8, wherein in ~~said the~~ developing blade ~~10e~~ mounting step, a new developing blade 10e or a used developing blade 10e is mounted.

Please replace paragraph starting at page 75, line 3 with the following amended paragraph:

10. A method according to any one of ~~Paragraphs~~ paragraphs 1 to 9, wherein in ~~said the~~ developing roller ~~10d~~ step, a new or used developing roller 10d is mounted.

Please replace paragraph starting at page 75, line 6 with the following amended paragraph:

11. A method according to any one of ~~Paragraphs~~ paragraphs 1 to 10, wherein prior to ~~said the~~ container coupling process, ~~said the~~ electrophotographic photosensitive drum 7 and ~~said the~~ cleaning blade are dismounted from ~~said the~~ cleaner container, and toner which has been removed from ~~said the~~ electrophotographic photosensitive drum 7 and accommodated in ~~said the~~ cleaner container, is removed.

Please replace paragraph starting at page 75, line 14 with the following amended paragraph:

12. A method according to ~~Paragraph~~ paragraph 11, wherein after the toner is removed, a new or used electrophotographic photosensitive drum 7 and a new or used cleaning blade are mounted.

Please replace paragraph starting at page 75, line 18 with the following amended paragraph:

13. A method according to any one of ~~Paragraphs~~ paragraphs 1 to 12, wherein a toner supply opening 12a1 supplies the toner accommodated in the toner accommodating portion 10a to the developing roller 10d, wherein ~~said the~~ remanufacturing method is implemented by pulling out ~~with~~ a toner seal for sealing a the toner supply opening 12a1 provided to supply the toner accommodated in ~~said the~~ toner accommodating portion 10a to ~~said the~~ developing roller 10d

having been pulled out to supply t toner accommodated in said toner accommodating portion 10a to said developing roller 10d.

Please replace paragraph starting at page 75, line 27 with the following amended paragraph:

14. A remanufacturing method of remanufacturing a process cartridge B comprising:

(a) a step of preparing a used process cartridge B which comprises a toner developing container 12, a cleaning container 13 and pins for coupling ~~said the~~ toner developing container 12 and ~~said the~~ cleaning container 13 at opposite longitudinal ends of ~~said the~~ process cartridge B;

~~said the~~ toner developing container 12 including a toner accommodating portion 10a, a toner supply opening 12a1, a developing roller 10d and a developing blade 10e;

~~said the~~ cleaning container 13 including an electrophotographic photosensitive drum 7;

(b) a container separating step of separating ~~said the~~ process cartridge B into ~~said the~~ toner developing container 12 and ~~said the developing cleaning~~ container by disengaging ~~said the~~ pins from ~~said the~~ process cartridge B;

(c) a developing roller ~~10d~~ dismounting step of dismounting ~~said the~~ developing roller 10d from ~~said the~~ toner developing container 12 separated by ~~said the~~ container separating step;

(d) a developing blade ~~10e~~ dismounting step of dismounting ~~said the~~ developing blade 10e from ~~said the~~ toner developing container 12 separated by ~~said the~~ container separating step;

(e) an elastic member 66 mounting step of mounting an elastic member 66 to a longitudinally inside of an end seal 34 provided adjacent each of opposite longitudinal ends of a or ~~said the~~ developing roller 10d, at a position laterally outside of ~~said the~~ end seal 34;

(f) a developing blade ~~10e~~ mounting step of mounting a or ~~said the~~ developing blade 10e on a or ~~said the~~ toner developer container;

(g) a developing roller ~~10d~~ mounting step of mounting a or ~~said the~~ developing roller 10d on ~~said the~~ toner developer container having ~~said the~~ developing blade 10e;

(h) a toner refilling step of refilling the toner into a or ~~said the~~ toner accommodating portion 10a of ~~said the~~ toner developing container 12 having ~~said the~~ developing blade 10e and ~~said the~~ developing roller 10d, through the toner supply opening 12a1 of ~~said the~~ toner developing container 12 having ~~said the~~ seal; and

(i) a container coupling step of coupling ~~said the~~ toner developing container 12 having ~~said the~~ developing blade 10e and ~~said the~~ developing roller 10d with a or ~~said the~~ cleaning container 13 by engaging a or ~~said the~~ pin 41 into them.

Please replace paragraph starting at page 77, line 22 with the following amended paragraph:

15. A method according to ~~Paragraph~~ paragraph 14, further comprising a flexible sheet 42 mounting step of mounting, after ~~said the~~ cut-away portion ~~12d~~ sealing step and before ~~said the~~ toner refilling step, a flexible sheet 42 to ~~said the~~ toner developing container 12 so as to extend

along the longitudinal direction of ~~said~~ the developing roller 10d when ~~said~~ the developing roller 10d is mounted to ~~said~~ the toner developing container 12.

Please replace paragraph starting at page 78, line 3 with the following amended paragraph:

16. A method according to ~~Paragraph~~ paragraph 15, wherein in ~~said~~ the flexible sheet 42 mounting step, each of longitudinal ends of ~~said~~ the flexible sheet 42 extends over a surface of ~~said~~ the elastic member 66 and a part of ~~said~~ the end seal 34.

Please replace paragraph starting at page 78, line 8 with the following amended paragraph:

17. A method according to ~~Paragraph~~ paragraph 15 or 16, further comprising a first and second side seal ~~64~~ mounting step of mounting, after ~~said~~ the flexible sheet 42 mounting step, a first side seal 64 continuously on a longitudinal end of ~~said~~ the flexible sheet 42 mounted on ~~said~~ the toner developing container 12 and ~~said~~ the toner developing container 12, and a second side seal 64 continuously on the other longitudinal end of ~~said~~ the flexible sheet 42 and ~~said~~ the toner developing container 12.

Please replace paragraph starting at page 78, line 18 with the following amended paragraph:

18. A remanufacturing method of remanufacturing a process cartridge B comprising:

(a) a step of preparing a used process cartridge B which comprises a toner developing container 12, a cleaning container 13 and pins for coupling ~~said the~~ toner developing container 12 and ~~said the~~ cleaning container 13 at opposite longitudinal ends of ~~said the~~ process cartridge B;

~~said the~~ toner developing container 12 including a toner accommodating portion 10a, a toner supply opening 12a1, a developing roller 10d and a developing blade 10e;

~~said the~~ cleaning container 13 including an electrophotographic photosensitive drum 7;

(b) a container separating step of separating ~~said the~~ process cartridge B into ~~said the~~ toner developing container 12 and ~~said the cleaning developing~~ container by disengaging ~~said the~~ pins from ~~said the~~ process cartridge B;

(c) a developing roller ~~10d~~ dismantling step of dismantling ~~said the~~ developing roller 10d from ~~said the~~ toner developing container 12 separated by ~~said the~~ container separating step;

(d) a developing blade ~~10e~~ dismantling step of dismantling ~~said the~~ developing blade 10e from ~~said the~~ toner developing container 12 separated by ~~said the~~ container separating step;

(e) an elastic member ~~66~~ mounting step of mounting an elastic member 66 ~~to a~~ longitudinally inside of an end seal 34 provided adjacent each of opposite longitudinal ends of a or ~~said the~~ developing roller 10d, at a position laterally outside of ~~said the~~ end seal 34;

(f) a flexible sheet ~~42~~ mounting step of mounting a flexible sheet 42 to a or ~~said the~~ toner

developing container 12 so as to extend along the longitudinal direction of ~~said~~ the developing roller 10d when ~~said~~ the developing roller 10d is mounted to ~~said~~ the toner developing container 12;

(g) ~~a~~ first and second side seal 64 mounting step of mounting a first side seal 64 continuously on a longitudinal end of ~~said~~ the flexible sheet 42 mounted on ~~said~~ the toner developing container 12 having ~~said~~ the flexible sheet 42 and ~~said~~ the toner developing container 12 having ~~said~~ the flexible sheet 42, and a second side seal 64 continuously on the other longitudinal end of ~~said~~ the flexible sheet 42 and ~~said~~ the toner developing container 12 having ~~said~~ the flexible sheet 42;

(h) a developing blade ~~10e~~ mounting step of mounting a or ~~said~~ the developing blade 10e on ~~said~~ the toner developer container having the flexible sheet 42;

(i) a developing roller ~~10d~~ mounting step of mounting a or ~~said~~ the developing roller 10d on ~~said~~ the toner developer container having ~~said~~ the flexible sheet 42;

(j) a toner refilling step of refilling the toner into a or ~~said~~ the toner accommodating portion 10a of ~~said~~ the toner developing container 12 having ~~said~~ the flexible sheet 42, ~~said~~ the developing blade 10e and ~~said~~ the developing roller 10d, through the toner supply opening 12a1 of ~~said~~ the toner developing container 12 having ~~said~~ the flexible sheet 42; and

(k) a container coupling step of coupling ~~said~~ the toner developing container 12 having ~~said~~ the flexible sheet 42, ~~said~~ the developing blade 10e and ~~said~~ the developing roller 10d with a or ~~said~~ the cleaning container 13 by engaging a or ~~said~~ the pin 41 into them.

Please replace paragraph starting at page 81, line 2 with the following amended paragraph:

19. A method according to ~~Paragraph~~ paragraph 14 or 18, wherein ~~said the~~ elastic member 66 is mounted on a side of ~~said the~~ end seal 34.

Please replace paragraph starting at page 81, line 5 with the following amended paragraph:

20. A method according to any one of ~~Paragraphs~~ paragraphs 14 to 19, wherein ~~said the~~ seal is made of a plastically deformable material.

Please replace paragraph starting at page 81, line 8 with the following amended paragraph:

21. A method according to any one of ~~Paragraphs~~ paragraphs 14 to 20, wherein in ~~said the~~ developing blade ~~to~~ the mounting step, a new developing blade 10e or a used developing blade 10e is mounted.

Please replace paragraph starting at page 81, line 12 with the following amended paragraph:

22. A method according to any one of ~~Paragraphs~~ paragraphs 14 to 21, wherein in ~~said the~~ developing roller ~~to~~ the step, a new or used developing roller 10d is mounted.

Please replace paragraph starting at page 81, line 15 with the following amended paragraph:

23. A method according to any one of ~~Paragraphs~~ paragraphs 14 to 22, wherein prior to ~~said the~~ container coupling process, ~~said the~~ electrophotographic photosensitive drum 1 and ~~said the~~ cleaning blade are dismounted from ~~said the~~ cleaner container, and toner which has been removed from ~~said the~~ electrophotographic photosensitive drum 1 and accommodated in ~~said the~~ cleaner container, is removed.

Please replace paragraph starting at page 81, line 23 with the following amended paragraph:

24. A method according to ~~Paragraph~~ paragraph 23, wherein after the toner is removed, a new or used electrophotographic photosensitive drum 1 and a new or used cleaning blade are mounted.

Please replace paragraph starting at page 81, line 27 with the following amended paragraph:

25. A method according to any one of ~~Paragraphs~~ paragraphs 14 to 24, wherein a toner supply opening 12a1 supplies the toner accommodated in the toner accommodating portion 10a to the developing roller 10d, wherein ~~said the~~ remanufacturing method is implemented by pulling out with a toner seal for sealing a the toner supply opening 12a1 provided to supply the toner accommodated in ~~said the~~ toner accommodating portion 10a to ~~said the~~ developing roller 10d

~~having been pulled out to supply toner accommodated in said toner accommodating portion 10a to said developing roller 10d.~~

Please replace paragraph starting at page 82, line 9 with the following amended paragraph:

26. A method according to any one of ~~Paragraphs~~ paragraphs 1, 5, 14 and 18, wherein ~~said the~~ process cartridge B comprises a gear fixed co-axially with ~~said the~~ electrophotographic photosensitive drum 7 and a gear fixed co-axially with ~~said the~~ developing roller 10d, which gears are in meshing engagement, and wherein after ~~said the~~ container coupling process, ~~said the~~ toner developing container 12 and ~~said the~~ cleaner container are rotated about ~~said the~~ pin 41 to disengage ~~said the~~ gears from each other or to make a back clearance of the meshing engagement larger than that during image forming operation, and the disengagement or larger back clearance is maintained.

Please replace paragraph starting at page 82, line 22 with the following amended paragraph:

27. A method according to ~~Paragraph~~ paragraph 26, wherein ~~said the~~ toner developing container 12 and ~~said the~~ cleaner container are rotated toward each other about ~~said the~~ pin 41 at a portion across ~~said the~~ pin 41 from ~~said the~~ electrophotographic photosensitive drum 7, and a tape is stuck on ~~said the~~ toner developing container 12 and ~~said the~~ cleaner container to maintain the disengagement or the larger back clearance.